ABSTRACT OF THE DISCLOSURE

The present invention provides an exposure technology capable of generating bitmap data with high efficiency, and making compatible higher resolution and higher speed control in exposure using pattern data in a bitmap format. An apparatus implementing the exposure technology comprises: a means for applying a charged particle beam or a light onto a sample, and exposing a desired pattern onto the sample; a data processing means for bitmapping the shape of the pattern, and generating the pattern shape data in the bitmap format; and a means for controlling the application of the charged beam or light onto the sample using the pattern shape data in the bitmap format, and the data processing means comprising a function of rejecting an overlap area between patterns from pattern vertex data defining the pattern shape; and a function of generating the pattern shape data in the bitmap format based on the result of the overlap rejection function.